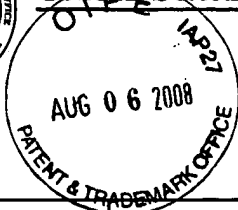




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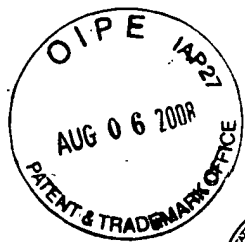
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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/680,840
Filing Date: October 07, 2003
Appellant(s): RIFFER, DAVID B.

MAILED
JUL 28 2008
GROUP 1700

Robert C. Collins
For Appellant

EXAMINER'S ANSWER

This is in response to the panel remand dated 30 June 2008, the reply brief filed 6 October 2006, and the appeal brief filed 3 July 2006 appealing from the Office action mailed 7 February 2006.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

No amendment after final has been filed.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is substantially correct. The changes are as follows: The reference to Hundt (USPN 3147874) was used only as evidence for the motivation to combine the cited references in the final rejection of Claims 1, 24, and 32.

Independent Claims 1 and 32 are rejected over the combination of Mori 4,312,824 and Mehra 5,700,412 with Hundt 3,147,874 as evidence. Independent Claim 24 is rejected over Mori 4,312,824, Mehra 5,700,412, and Schrenk 5,380,479, with Hundt 3,147,874 as evidence.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

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(8) Evidence Relied Upon

4,312,824	MORI et al.	1-1982
5,700,412	MEHRA et al.	12-1997
5,380,479	SCHRENK et al.	1-1995
3,147,874	HUNDT et al.	9-1964

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Double Patenting

The rejections of **Claims 1, 5, 8-10, 12-14, 21-28, 30, 31 32, 40-42, and 44-46** set forth previously under this section are withdrawn in view of the terminal disclaimer filed 3 July 2006.

Claim Rejections - 35 USC § 103

Claims 1-9, 13-14, 16, and 20-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mori (USPN 4312824) in view of Mehra (USPN 5700412) as evidenced by Hundt (USPN 3147874).

As to Claim 1, Mori teaches the following:

- a) providing a plastic cap that includes a base and peripheral skirt defining a cap interior (Fig. 4, Item 1)
- b) placing within the cap interior, on the base, a mold charge that includes a matrix polymer (6:11-31)

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c) compression molding the mold charge in situ within the cap interior against the base to form a liner on the base (9:34-39).

Mori appears to be silent to the layers of barrier polymer and compatibilizer. Hundt provides evidence that multilayer barriers, fabricated by extrusion (5:30-31 and 3:45-48), were well known in the art in order to prevent gas leakage (1:14-23). Additionally, Mehra teaches layers of barrier and matrix (3:14-46) resisting transmission of gas and water vapor (inherent in Mehra's method), in addition to a compatibilizer material comprising a thermoplastic resin for tying the matrix polymer material to the barrier polymer by reactive bonds or non-reactive adhesion mechanisms (4:23-51). It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to incorporate the method of Mehra into that of Mori in view of Hundt's teaching that it was known and desirable to provide multilayer crown closures that are impervious to gas leakage (1:14-23 and 1:43-50).

As to Claims 2 and 3, in the combined method, the layers would have had a predetermined horizontal elongation and orientation, but random orientation within the plane of the cap. **As to Claim 4**, Mehra teaches extruding a mold charge having layers therein (7:50-60) and severed (3:14-29) and Mori teaches a pellet or a disc (7:60-64), which would have obviously been made by severing. **As to Claim 5**, Mehra teaches compatibilizer material disposed in the barrier polymer material layers (4:23-27). **As to Claims 6 and 7**, Mehra's mixture consists essentially of the matrix, barrier, and compatibilizer (columns 1 and 2), however, Mori also teaches clay as a known additive (7:57), and smectic clay would have been obvious in view of Mori's teaching. **As to Claim 8**, Mehra teaches the claimed subject matter (3:30-33). **As to Claim 9**, because Mehra teaches the claimed polymer(s), it is the Examiner's position that the

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claimed properties of the matrix are inherent in Mehra's method. However, Hundt also provides evidence that the mechanical properties of a sealing film, including the Shore hardness, are result effective variables to the ordinary artisan (3:23-4:2). See MPEP 2144.05 II and *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to optimize the mechanical properties, including hardness, in sealing caps. **As to Claim 13**, Mehra teaches at least EVOH (3:34-38 and 3:64-4:22). **As to Claim 14**, Mehra teaches at least maleic anhydride grafted polymers (5:62-67). **As to Claim 16**, in view of Mehra's teaching to blend the compatibilizer with the barrier resin (4:23-27), it would have also been prima facie obvious to blend the barrier resin with the matrix polymer instead. Mehra also appears to teach blending the compatibilizer with the matrix resin (9:18-28). **As to Claim 20**, because Mehra teaches the claimed polymer(s), it is the Examiner's position that the claimed properties of the matrix are inherent in Mehra's method. However, Hundt also provides evidence that the mechanical properties of a sealing film, including the Shore hardness, are result effective variables to the ordinary artisan (3:23-4:2). See MPEP 2144.05 II and *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to optimize the mechanical properties, including hardness, in sealing caps. **As to Claim 21**, Mori teaches at least fatty acid ester lubricants (7:17). **As to Claims 22 and 23**, see Mori (7:49-52).

Claims 10-12 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mori (USPN 4312824) in view of Mehra (USPN 5700412), as evidenced by Hundt (USPN 3147874).

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and further in view of White (USPN 5211974). Mori and Mehra, as evidenced by Hundt, teach the subject matter of Claims 1 and 8. See the rejections of Claims 1 and 8 under 35 USC 103(a).

As to Claim 10, White teaches styrene block copolymers (4:63-5:15) in order to provide a blend that gives the surprising combination of good sealing properties and impermeability (4:55-62). It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to incorporate the method of White into that of Mori and Mehra in order to provide the same combination of good sealing and impermeability. **As to Claim 11**, Hundt (USPN 3147874) is cited as evidence only to show that the mechanical properties of a sealing film, including the Shore hardness, are result effective variables to the ordinary artisan (3:23-4:2). See MPEP 2144.05 II and *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to optimize the mechanical properties, including hardness, in sealing caps. **As to Claim 12**, White teaches ethylene copolymers (4:64). **As to Claim 15**, Mehra teaches EVOH as a common barrier (3:34-40), and White teaches EVA as a common matrix (2:19-32).

Claims 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mori (USPN 4312824) in view of Mehra (USPN 5700412), as evidenced by Hundt (USPN 3147874), and further evidenced by Schrenk (USPN 5380479). Mori and Mehra, as evidenced by Hundt, teach the subject matter of Claim 1. See the rejection of Claim 1 under 35 USC 103(a).

As to Claims 17-19, Mehra teaches laminar articles of barrier polymer with matrix polymer (column 3), but appears to be silent to the claimed number of layers. However, Schrenk provides evidence that the ordinary artisan understands that "it is generally true that all other

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things being equal, the larger the number of layers across a cross section of the wall of an article, the greater the improvement in those properties which are enhanced by a lamellar construction, so long as the layers are substantially co-continuous across the cross-section of the article.”

(12:34-39). Schrenk therefore appears to provide evidence that the ordinary artisan understands that the number of layers is a result-effective variable. See MPEP 2144.05 II and *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). In this case, it would have been prima facie obvious to optimize the number of layers in order to improve the barrier properties provided by those layers.

Claims 24, 25, and 28-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mori (USPN 4312824) in view of Mehra (USPN 5700412) and Schrenk (USPN 5380479) as evidenced by Hundt (USPN 3147874).

As to Claim 24, Mori teaches:

- c) providing a plastic cap including a base and a peripheral skirt defining an interior (Fig. 4, Item 1)
- d) placing a mold charge pellet within the cap (6:11-31)
- e) compression molding the mold charge pellet in situ within the cap (9:34-39)

Mori appears to be silent to steps a, b, and the continuous layers of barrier polymer material.

Hundt provides evidence that multilayer barriers, fabricated by extrusion (5:30-31 and 3:45-48), were well known in the art in order to prevent gas leakage (1:14-23). However, the following aspects were also well known in the art for the following reasons:

Schrenk teaches:

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a) extruding plastic mold charge material that consists essentially of:

1) continuous (5:10) layers of barrier polymer material to resist gas transmission, totaling at least nine alternating layers (18:59-60).

2) compatibilizer material comprising thermoplastic resin, the compatibilizer being disposed in the matrix polymer or barrier polymer layers, or in separate layers between the matrix and barrier (15:65-16:11).

Mehra teaches:

b) severing a mold charge pellet from the mold charge material extruded (See Mehra 7:50-60 and 3:14-29)

It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to incorporate the methods of Schrenk and Mehra into that of Mori in view of Hundt's teaching that it was known and desirable to provide multilayer crown closures that are impervious to gas leakage (1:14-23 and 1:43-50), and because doing so would improve the barrier properties of the multilayer (Schrenk 12:34-39).

As to Claim 25, Mehra teaches the claimed subject matter (3:30-33). **As to Claim 28**, Mehra teaches at least EVOH (3:34-38 and 3:64-4:22). **As to Claim 29**, Mori teaches clay as a known additive (7:57), and smectic clay would have been obvious in view of Mori's teaching. Schrenk additionally teaches mica (18:17-36), and clay would have been an obvious alternative. **As to Claim 30**, Mehra teaches at least maleic anhydride grafted polymers (5:62-67). **As to Claim 31**, Mori teaches at least fatty acid ester lubricants (7:17).

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Claims 26 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mori (USPN 4312824) in view of Mehra (USPN 5700412) and Schrenk (USPN 5380479) as evidenced by Hundt (USPN 3147874), and further in view of White (USPN 5211974). Mori, Schrenk, and Mehra teach the subject matter of Claims 24 and 25. See the rejections of Claims 24 and 25 under 35 USC 103(a).

As to **Claim 26**, White teaches styrene block copolymers (4:63-5:15) in order to provide a blend that gives the surprising combination of good sealing properties and impermeability (4:55-62). It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to incorporate the method of White into that of Mori and Mehra in order to provide the same combination of good sealing and impermeability. As to **Claim 27**, White teaches ethylene copolymers (4:64).

Claims 32, 33, 35, 36, 39-41, 43, 45, 46, 50-55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mori (USPN 4312824) in view of Mehra (USPN 5700412) as evidenced by Hundt (USPN 3147874).

As to **Claim 32**, Mori teaches compression molding a pellet to form a liner disk (7:62), but appears to be silent to the other claimed limitations. However, Mehra teaches:

a) extruding a pellet that consists essentially of a multiplicity of alternating layers of matrix polymer material and barrier polymer material (3:14-30)

b) orienting of the layers parallel would be obvious in the combined method in order to capitalize on the barrier properties.

Hundt provides evidence that multilayer barriers, fabricated by extrusion (5:30-31 and 3:45-48), were well known in the art in order to prevent gas leakage (1:14-23). It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to incorporate the method of Mehra into that of Mori in view of Hundt's teaching that it was known and desirable to provide multilayer crown closures that are impervious to gas leakage (1:14-23 and 1:43-50).

As to Claim 33, Mehra's teaches that the barrier can include compatibilizers (4:23-27), and in view of these teachings, it would have been prima facie obvious to incorporate compatibilizers in the matrix also. **As to Claims 35 and 36**, Mehra teaches this aspect (4:23-67).... **As to Claim 39**, Mehra teaches this aspect of the invention (8:32-45). **As to Claim 40**, Mehra teaches the claimed subject matter (3:30-33). **As to Claims 41 and 43**, because Mehra teaches the claimed polymer(s), it is the Examiner's position that the claimed properties of the matrix are inherent in Mehra's method. However, Hundt also provides evidence that the mechanical properties of a sealing film, including the Shore hardness, are result effective variables to the ordinary artisan (3:23-4:2). See MPEP 2144.05 II and *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to optimize the mechanical properties, including hardness, in sealing caps. **As to Claim 45**, Mehra teaches EVOH as a common barrier (3:34-40). **As to Claim 46**, Mehra teaches at least maleic anhydride grafted polymers (5:62-67). **As to Claim 50**, Mori teaches c) providing a closure cap having a base and a peripheral skirt defining a cap interior and means for securing the cap to the container (Figs. 4, 5, and 6) and d) securing the inner liner to the interior of the base (Figs. 2, 3, and 4). **As to Claim 51**, in the combined method, this

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limitation would have been inherent or obvious in order to provide maximum barrier protection.

As to Claim 52, Hundt (USPN 3147874) is cited as evidence only to show that the mechanical properties of a sealing film, including the Shore hardness, are result effective variables to the ordinary artisan (3:23-4:2). See MPEP 2144.05 II and *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to optimize the mechanical properties, including hardness, in sealing caps. **As to Claim 53**, Mori teaches at least fatty acid ester lubricants (7:17). **As to Claims 54 and 55**, see Mori (7:49-52).

Claims 34, 37, and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mori (USPN 4312824) in view of Mehra (USPN 5700412), as evidenced by Hundt (USPN 3147874), and further in view of Schrenk (USPN 5380479). Mori and Mehra as evidenced by Hunt teach the subject matter of Claims 32 and 35.

As to Claim 34, Schrenk teaches that “materials having viscosities that differ by no greater than a factor of five can be appropriately used together in the present invention...” (15:60-62). It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to select components, including the compatibilizer, to have viscosity differences no greater than a factor of five. **As to Claims 37 and 38**, Schrenk teaches these aspects (16:3-21).

Claims 42 and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mori (USPN 4312824) in view of Mehra (USPN 5700412) as evidenced by Hundt (USPN 3147874), and

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further in view of White (USPN 5211974). Mori and Mehra as evidenced by Hunt teach the subject matter of Claims 40 and 43. See the rejections of Claims 40 and 43 under 35 USC 103(a).

As to Claim 42, White teaches styrene block copolymers (4:63-5:15) in order to provide a blend that gives the surprising combination of good sealing properties and impermeability (4:55-62). It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to incorporate the method of White into that of Mori and Mehra in order to provide the same combination of good sealing and impermeability. **As to Claim 44**, White teaches ethylene copolymers (4:64).

Claims 47-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mori (USPN 4312824) in view of Mehra (USPN 5700412), as evidenced by Hundt (USPN 3147874), and as also evidenced by Schrenk (USPN 5380479). Mori and Mehra as evidenced by Hunt teach the subject matter of Claim 32. See the rejection of Claim 32 under 35 USC 103(a).

As to Claims 47-49, Mehra teaches laminar articles of barrier polymer with matrix polymer (column 3), but appears to be silent to the claimed number of layers. However, Schrenk provides evidence that the ordinary artisan understands that “it is generally true that all other things being equal, the larger the number of layers across a cross section of the wall of an article, the greater the improvement in those properties which are enhanced by a lamellar construction, so long as the layers are substantially co-continuous across the cross-section of the article.” (12:34-39). Schrenk therefore appears to provide evidence that the ordinary artisan understands that the number of layers is a result-effective variable. See MPEP 2144.05 II and *In re Boesch*,

617 F.2d 272, 205 USPQ 215 (CCPA 1980). In this case, it would have been prima facie obvious to optimize the number of layers of Mehra in order to improve the barrier properties provided by those layers.

(10) Response to Argument

Arguments set forth in the 3 July 2006 Appeal Brief

In response to the rejection of Claim 1, Appellant argues on page 6 that there is nothing to suggest that the discrete particle or platelet-forming action involved in such a stretching would or could take place in compression molding, and thus there is no basis for combination except in hindsight. Appellant further argues on page 7 that in the method of Mori, in-situ liner compression molding is accomplished by severing a charge or extruded material and placing the charge within a preformed closure shell and contacting it with a male die element, but that this would not produce material flow to cause a platelet-forming action.

The Examiner responds firstly that the Appellant concedes the following on Page 7, lines 4-7: "As disclosed in Mori, as well as in the various patents referenced in the application text, in-situ liner compression molding is accomplished by severing a charge of extruded material, placing the charge within a preformed closure shell, and then bringing a male die element into contact with the charge material." The Examiner notes that these are the method steps sought in the appealed claim, the only difference being drawn to the composition or layered structure of the "mold charge". Thus, Appellant appears to assert that the method is patentably distinct because of its use of a different starting material in a process that is conceded to be conventional. However, it has already been held that use of a different starting material in an old process is not

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patentable. See *In re Durden, Jr., et al.*, 226 USPQ 359 ("The issue to be decided is whether a chemical process, otherwise obvious, is patentable *because* either or both the specific starting material employed and the product obtained, are novel and unobvious."). Where the ordinary artisan can implement a predictable variation, 35 U.S.C. 103(a) likely bars its patentability. *KSR International Co. v. Teleflex Inc. (KSR)*, 550 U.S. ____, 82 USPQ2d 1385, 1396 (2007). Where a claim recites a structure already known in the prior art that is altered by the mere substitution of one element for another known in the field, the combination must do more than yield a predictable result. *KSR*, 550 U.S. at ____, 82 USPQ2d at 1395.

In this case, the Examiner asserts that Mehra teaches a known barrier resin material which forms "laminar" articles (title) and which would have been an obvious barrier material for use in the Mori process. In the Mehra process, the compatibilizer material is first incorporated with the barrier material in a coated pellet configuration which is also referred to as cladding (3:14-30). Next, a melted heterogeneous blend of a polyolefin and a barrier resin is established and formed by stretching a body of the melt (6:8-14). Mehra suggests that the success of the invention depends on establishing a melted heterogeneous blend of incompatible polymers so that when the melt is stretched, such as by extrusion forces, one polymer forms a continuous matrix phase and another is in a form of discontinuous substantially two-dimensional parallel and overlapping layers embedded in the continuous phase (6:25-33). Hundt was provided as evidence that one would have found it desirable to use barrier materials in the Mori article, and thus to substitute known barrier materials into the Mori process.

Appellant asserts that the compression of Mori would not cause the "stretching" into the platelets. However, Mehra provides a charge of material by extrusion which already has the

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platelet structure (6:25-33, 8:5, and 7:67-8:1). No additional processing is needed. When the extruded material of Mehra is used in the Mori process, the combination meets the claimed process. Mori teaches using a molten pellet and a heated press mold to avoid molecular orientation by plastic deformation (4:10-25), and does not teach away from the melted heterogeneous stretched blend of Mehra.

Thus, the Examiner's position is that Appellant concedes the process to be known or conventional with the exception of the particular material used. The particular material is also known from Mehra as a substance which exhibits good fluid barrier and mechanical properties (Mehra, Abstract), and Hundt provides evidence that it is preferred to use a gas impervious disc as a seal for crown closures (Hundt, 1:43). It is submitted that the ordinary artisan would recognize other barrier materials as predictable substitutes for the material already disclosed by Mori, including the laminar material of Mehra.

In response to the rejection of Claim 1, Appellant further argues that Mehra provides a "heterogeneous blend" of discrete particles and is not remotely related to providing a mold charge that includes "layers of matrix polymer alternating with layers of barrier polymer material".

Initially, it should be noted that by "heterogeneous", Mehra means that there may be platelets of barrier material in a matrix (2:43-47). The claim itself does not require any particular configuration of the "layers" and the broadest reasonable interpretation of the claim in light of the specification does not exclude the Mehra material. See instant Figs. 4A, item 20, Fig. 4B, item 20, Fig. 8, item 20d, and the paragraph bridging pages 8 and 9 of the specification, which

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suggests that multiple flat, spiral, or coaxial layers are within the scope of Claim 1. Thus, Mehra provides that the act of extruding the melted blend creates the platelets, which are interpreted to be alternating layers of matrix and barrier polymer materials (2:48-64, 7:65-8:5). The extruded blend from Mehra used in the method of Mori would maintain substantially the claimed platelet structure.

In response to the rejection of Claim 1, Appellant further argues that it is unclear what Hundt has to do with the present application, namely a method of making a plastic closure. There is no disclosure or suggestion in Hundt that these disks of diverse materials should be formed by compression molding.

The Examiner responds that Hundt provides evidence regarding predictability and motivation. By teaching that gas impervious discs or gas barrier lamina are preferred or desirable in a seal for crown closures (1:43-50), Hundt suggests a desired result (gas barrier or imperviousness). Other predictable alternatives known in the art which provide a similar result would have therefore been obvious to the ordinary artisan. Hundt teaches that barrier materials (which Mehra provides) are obviously desirable in bottle closures (as in the method of Mori).

In response to the rejection of Claim 1, Appellant further argues that there is no disclosure or suggestion in Mori, Mehra, or Hundt that would lead one of ordinary skill to the subject matter of Claim 1.

The Examiner responds that Hundt provides evidence that the ordinary artisan would have been motivated to combine the methods in order to provide barrier properties into bottle

closures. Hundt teaches that barrier materials (which Mehra provides) are obviously desirable in bottle closures (as in the method of Mori).

In response to the rejection of Claim 24, Appellant argues that Claim 24 requires “continuous layers” of matrix and barrier polymer materials, and that this is the antithesis of Mehra’s disclosure.

It is noted that Appellant concedes the following on Page 7, lines 4-7: “As disclosed in Mori, as well as in the various patents referenced in the application text, in-situ liner compression molding is accomplished by severing a charge of extruded material, placing the charge within a preformed closure shell, and then bringing a male die element into contact with the charge material.” The Examiner notes that these are the method steps sought in the appealed claim, the only difference being drawn to the composition or layered structure of the “mold charge”. Thus, Appellant appears to assert that the method is patentably distinct because of its use of a different starting material in a process that is conceded to be conventional. However, it has already been held that use of a different starting material in an old process is not patentable. See *In re Durden, Jr., et al.* 226 USPQ 359 (“The issue to be decided is whether a chemical process, otherwise obvious, is patentable *because* either or both the specific starting material employed and the product obtained, are novel and unobvious.”). In this case, the Examiner asserts that Appellant’s claim to a different starting material in an old process does not patentably distinguish the instant claims since the different starting material is a predictable and substitutable alternative.

Additionally, it should be noted that Mehra was not relied upon for the “continuous layers”, which were instead provided by Shrenk. Mehra provides teaching that it is conventional to sever a mold charge pellet for the extruded mold charge material, as claimed in step (b) of Claim 24. It is now recognized that Mehra may be redundant in this respect since Shrenk already teaches cutting of a pellet as a charge material and shaping it by compression (Figs. 10A-10C and 19:29-32) and Appellants concede on Page 7, lines 4-7 of the Brief that Mori provides a step of severing a charge of extruded material, placing the charge within a preformed closure shell, and then bringing a male die element into contact with the charge material.

In response to the rejection of Claim 24, Appellant argues that Schrenk is not suggestive of compression molding barrier liners from multilayer charge pellets, and has nothing to do with Mehra reference, which uses heterogeneous blends involving discrete particles or platelets.

The Examiner responds that Hundt provides motivation to make the combination of Shrenk with Mori, namely that it is desirable to provide barrier properties (as found in the continuous barrier layers of Schrenk) into a bottle closure (as in the method of Mori).

In response to the rejection of Claim 32, Appellant argues that the claim recites a pellet that consists essentially of alternating layers of matrix and barrier polymer and compression molding the pellet to form a liner disk. Appellant further argues that Mehra does not disclose or suggest extruding a pellet that “consists essentially of” a multiplicity of alternating layers. Appellant argues that Mehra coextrudes the strands, cuts the strands into pellets, heterogeneously blends with polyolefin matrix material and the blend is stretched to produce the heterogeneous

film product with discrete particles or platelets. Appellant further argues that there is no disclosure or suggestion of extruding a pellet that consists essentially of a multiplicity of alternating layers of matrix and barrier polymers.

The Examiner responds that it should be noted that in the claim, it is only the structure of the pellet that “consists essentially of” the recited layers. This transitional language does not apply to the method of making the pellet, and Mehra’s polymer falls within the scope of the claimed structure and transitional language (7:12-19 and 8:5). The platelets in Mehra’s extruded pellet (8:5 and 7:12-19) are interpreted to be “alternating layers”. Appellant’s remarks do not point out any chemical additives or structural elements that fall outside the scope of the claimed composition and transitional language.

Additionally, the Examiner notes that the Appellant concedes the following on Page 7, lines 4-7: “As disclosed in Mori, as well as in the various patents referenced in the application text, in-situ liner compression molding is accomplished by severing a charge of extruded material, placing the charge within a preformed closure shell, and then bringing a male die element into contact with the charge material.” The Examiner notes that these are the method steps sought in the appealed claim, the only difference being drawn to the composition or layered structure of the pellet. Thus, Appellant appears to assert that the method is patentably distinct because of its use of a different starting material in a process that is conceded to be conventional. However, it has already been held that use of a different starting material in an old process is not patentable. See *In re Durden, Jr., et al.* 226 USPQ 359 (“The issue to be decided is whether a chemical process, otherwise obvious, is patentable *because* either or both the specific starting material employed and the product obtained, are novel and unobvious.”). In this case, the

Examiner asserts that Appellant's claim to a new starting material in an old process does not patentably distinguish the instant claims.

In response to the rejection of Claim 32, Appellant further argues that Hundt merely teaches a closure that includes disks of paper, PVC, and polyolefin.

The Examiner responds that Hundt provides motivation for incorporating barrier materials into a bottle closure, and suggests the combination which Appellant has claimed.

Arguments set forth in the 6 October 2006 Reply Brief

On page 3 of the Reply Brief, Appellants argue that there is no inherent disclosure of layers in the Mori reference.

The Examiner agrees that there is no inherent disclosure of layers and that the statement was made in error with respect to the Mori reference. However, the combination of Mehra with Mori set forth in the rejections above still renders obvious the claimed subject matter by teaching or suggesting all of the claimed limitations.

On page 4 of the Reply Brief, Appellants argue that Hundt has nothing to do with the claimed invention.

The Examiner responds that Hundt teaches the ordinary artisan's motivation - to provide gas imperviousness and a barrier layer to the inside of a cap. Taken together, Mori teaches the basic claimed process and Hundt suggests that one should improve the gas barrier property or imperviousness. The matrix material of Mehra may be comprised of a high, medium, or low

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density polyethylene not significantly different than the polyethylene material already used in the Mori process, but incorporating the additional benefit of a barrier material which provides an improved barrier to fluid permeation (Mehra, 2:27-35).

On page 4 of the Reply Brief, Appellants argue that Schrenk is incompatible with Mehra and that the simple necessity of a fourth reference is evidence of non-obviousness.

The Examiner responds that the Mehra reference was relied upon in certain rejections for teaching of cutting the extrudate. However, it is noted that this reference is redundant since Appellants conceded that this process step was already present in the Mori reference. See Page 7, lines 4-7 of the Appeal Brief. There are no other substantive remarks with respect to the Schrenk reference.

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(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Matthew J. Daniels/

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/Steven P. Griffin/

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